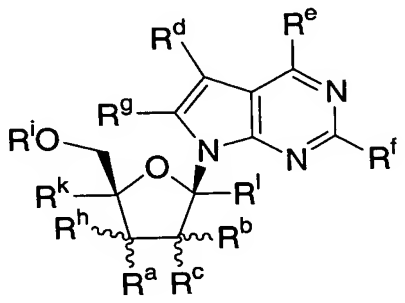
WHAT IS CLAIMED IS:

1. A compound of the structural formula:



or a pharmaceutically aceptable salt thereof;

wherein R^a and R^h are each independently selected from the group consisting of hydrogen, cyano, azido, halogen, hydroxy, mercapto, amino, C_{1-4} alkoxy, C_{2-4} alkenyl, C_{2-4} alkynyl, and C_{1-4} alkyl, wherein alkyl is unsubstituted or substituted with hydroxy, amino, C_{1-4} alkoxy, C_{1-4} alkylthio, or one to three fluorine atoms;

R^b is C_{2-4} alkenyl, C_{2-4} alkynyl, or C_{1-4} alkyl, wherein alkyl is unsubstituted or substituted with hydroxy, amino, C_{1-4} alkoxy, C_{1-4} alkylthio, or one to three fluorine atoms;

R^c is hydrogen, fluorine, hydroxy, marcapto, C_{1-4} alkoxy, or C_{1-4} alkyl; or R^b and R^c together with the carbon atom to which they are attached form a 3- to 6-membered saturated monocyclic ring system optionally containing a heteroatom selected from O, S, and NC_{0-4} alkyl;

R^d is hydrogen, cyano, nitro, C_{1-3} alkyl, $NHCONH_2$, $CONR^jR^j$, $CSNR^jR^j$, $COOR^j$, $C(=NH)NH_2$, hydroxy, C_{1-3} alkoxy, amino, C_{1-4} alkylamino, di(C_{1-4} alkyl)amino, halogen, (1,3-oxazol-2-yl), (1,3-thiazol-2-yl), or (imidazol-2-yl); wherein alkyl is unsubstituted or substituted with one to three groups independently selected from halogen, amino, hydroxy, carboxy, and C_{1-3} alkoxy;

R^e and R^f are each independently hydrogen, hydroxy, halogen, C_{1-4} alkoxy, amino, C_{1-4} alkylamino, di(C_{1-4} alkyl)amino, C_{3-6} cycloalkylamino, di(C_{3-6} cycloalkyl)amino, or C_{4-6} cycloheteroalkyl, unsubstituted or substituted with one to two groups independently selected from halogen, hydroxy, amino, C_{1-4} alkyl, and C_{1-4} alkoxy;

R^g is hydrogen, C_{1-4} alkyl, C_{2-4} alkynyl, halogen, cyano, carboxy, C_{1-4} alkyloxycarbonyl, azido, amino, C_{1-4} alkylamino, di(C_{1-4} alkyl)amino, hydroxy,

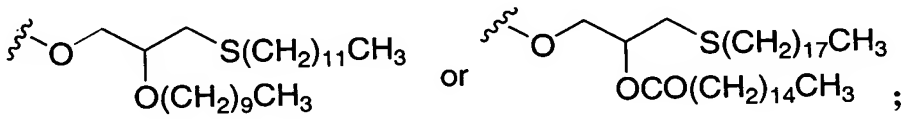
C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} alkylsulfonyl, (C_{1-4} alkyl)$_{0-2}$ aminomethyl, or C_{4-6} cycloheteroalkyl, unsubstituted or substituted with one to two groups independently selected from halogen, hydroxy, amino, C_{1-4} alkyl, and C_{1-4} alkoxy;

R^i is hydrogen, C_{1-10} alkylcarbonyl, $P_3O_9H_4$, $P_2O_6H_3$, or $P(O)R^mR^n$;

each R^j is independently hydrogen or C_{1-6} alkyl;

R^k and R^l are each independently hydrogen, methyl, hydroxymethyl, or fluoromethyl; and

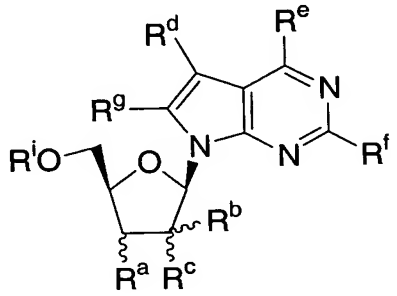
R^m and R^n are each independently hydroxy, $OCH_2CH_2SC(=O)C_{1-4}$ alkyl, $OCH_2O(C=O)OC_{1-4}$ alkyl, $NHCHMeCO_2Me$, $OCH(C_{1-4}$ alkyl$)O(C=O)C_{1-4}$ alkyl,



;

with the proviso that when R^a and R^c are α-hydroxy, R^e is amino, R^b is β-methyl and R^h is hydrogen or R^h is β-methyl and R^b is hydrogen, and R^f, R^g, R^i, R^k, and R^l are hydrogen, then R^d is not cyano or $CONH_2$.

2. The compound of Claim 1 of the structural formula:



wherein R^a is hydrogen, halogen, hydroxy, amino, or C_{1-4} alkoxy;

R^b is C_{1-3} alkyl, wherein alkyl is optionally substituted with hydroxy, amino, C_{1-3} alkoxy, C_{1-3} alkylthio, or one to three fluorine atoms;

R^c is hydroxy, fluoro, or C_{1-3} alkoxy;

Rd is hydrogen, cyano, methyl, halogen, or $CONH_2$;

Rg is hydrogen, amino, or C_{1-4} alkylamino;

R^i is hydrogen, $P_3O_9H_4$, $P_2O_6H_3$, or PO_3H_2; and

R^e and R^f are each independently hydrogen, halogen, hydroxy, amino, C_{1-4} alkylamino, di(C_{1-4} alkyl)amino, or C_{3-6} cycloalkylamino;

with the proviso that when R^a and R^c are α-hydroxy, R^e is amino, R^b is β-methyl, and R^f, R^g, and R^i are hydrogen, then R^d is not cyano or $CONH_2$.

3. The compound of Claim 2 wherein

R^b is methyl, fluoromethyl, hydroxymethyl, difluoromethyl, trifluoromethyl, or aminomethyl;

R^c is hydroxy, fluoro, or methoxy;

R^a is hydrogen, fluoro, hydroxy, amino, or methoxy;

R^i is hydrogen or $P_3O_9H_4$;

R^g is hydrogen or amino;

R^d is hydrogen, cyano, methyl, halogen, or $CONH_2$; and

R^e and R^f are each independently hydrogen, fluoro, hydroxy, or amino;

with the proviso that when R^b is β-methyl, R^a and R^c are α-hydroxy, R^e is amino, and R^f, R^g, and R^i are hydrogen, then R^d is not cyano or $CONH_2$.

4. The compound of Claim 1 selected from the group consisting of:

4-amino-7-(2-*C*-methyl-β-D-arabinofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-methylamino-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-dimethylamino-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-cyclopropylamino-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-7-(2-*C*-vinyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-7-(2-*C*-hydroxymethyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-7-(2-*C*-fluoromethyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-5-methyl-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine-5-carboxylic acid,
4-amino-5-bromo-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-5-chloro-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-5-fluoro-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
2,4-diamino-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,

2-amino-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
2-amino-4-cyclopropylamino-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
2-amino-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidin-4(3*H*)-one,
4-amino-7-(2-*C*-ethyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-7-(2-*C*,2-*O*-dimethyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidin-4(3*H*)-one,
2-amino-5-methyl-7-(2-*C*,2-*O*-dimethyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidin-4(3*H*)-one,
4-amino-7-(3-deoxy-2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*] pyrimidine,
4-amino-7-(3-deoxy-2-*C*-methyl-β-D-arabinofuranosyl)-7*H*-pyrrolo[2,3-*d*]-pyrimidine,
4-amino-2-fluoro-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-7-(3-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-7-(3-*C*-methyl-β-D-xylofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-7-(2,4-di-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine, and
4-amino-7-(3-deoxy-3-fluoro-2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine;
and the corresponding 5'-triphosphates;
or a pharmaceutically acceptable salt thereof.

5. The compound of Claim 4 selected from the group consisting of:
4-amino-7-(2-*C*-methyl-β-D-arabinofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-7-(2-*C*-fluoromethyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-5-methyl-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-5-bromo-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-5-chloro-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
4-amino-5-fluoro-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
and
4-amino-7-(2-*C*,2-*O*-dimethyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine,
and the corresponding 5'-triphosphates;
or a pharmaceutically acceptable salt thereof.

6. The compound of Claim 5 which is 4-amino-7-(2-*C*-methyl-β-D-arabinofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine; or a pharmaceutically acceptable salt thereof.

7. The compound of Claim 5 which is 4-amino-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine; or a pharmaceutically acceptable salt thereof.

8. The compound of Claim 5 which is 4-amino-7-(2-*C*-fluoromethyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine; or a pharmaceutically acceptable salt thereof.

9. The compound of Claim 5 which is 4-amino-5-chloro-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine; or a pharmaceutically acceptable salt thereof.

10. The compound of Claim 5 which is 4-amino-5-bromo-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine; or a pharmaceutically acceptable salt thereof.

11. The compound of Claim 5 which is 4-amino-5-fluoro-7-(2-*C*-methyl-β-D-ribofuranosyl)-7*H*-pyrrolo[2,3-*d*]pyrimidine; or a pharmaceutically acceptable salt thereof.

12. A pharmaceutical composition comprising a compound of Claim 1 and a pharmaceutically acceptable carrier.

13. The pharmaceutical composition of Claim 12 useful for inhibiting RNA-dependent RNA viral polymerase, inhibiting RNA-dependent RNA replication, and/or treating RNA-dependent RNA viral infection.

14. The pharmaceutical composition of Claim 13 wherein said RNA-dependent RNA viral polymerase is HCV NS5B polymerase, said RNA-

dependent RNA viral replication is HCV replication, and said RNA-dependent RNA viral infection is HCV infection.

15. A method of inhibiting RNA-dependent RNA viral polymerase and/or inhibiting RNA-dependent RNA viral replication comprising administering to a mammal in need of such inhibition an effective amount of a compound according to Claim 1.

16. The method of Claim 15 wherein said RNA-dependent RNA viral polymerase is HCV NS5B polymerase and said RNA-dependent RNA viral replication is HCV viral replication.

17. A method of treating RNA-dependent RNA viral infection comprising administering to a mammal in need of such treatment an effective amount of a compound according to Claim 1.

18. The method of Claim 17 wherein said RNA-dependent RNA viral infection is HCV infection.

19. The method of Claim 18 in combination with a therapeutically effective amount of another agent active against HCV.

20. The method of Claim 19 wherein said agent active against HCV is ribavirin; levovirin; thymosin alpha-1; an inhibitor of NS3 serine protease; an inhibitor of inosine monophosphate dehydrogenase; interferon-α or pegylated interferon-α, alone or in combination with ribavirin or levovirin.

21. The method of Claim 20 wherein said agent active against HCV is interferon-α or pegylated interferon-α, alone or in combination with ribavirin or levovirin.